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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/742,128	12/19/2003	Ankur P. Panchbudhe	VRT0117US	5026

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EXAMINER
DOAN, DUC T

ART UNIT	PAPER NUMBER
2188	

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/742,128	PANCHBUDHE ET AL.
	Examiner	Art Unit
	Duc T. Doan	2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>03 July 2006</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>27,29-42,44-46,48-50 and 52-54</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>27,29-42,44-46,48-50 and 52-54</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set for in 37 CFR

1.17(e), was filed in this application after final rejection. Since this application is eligible for continued

examination under 37 CFR 1.1 14, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality

of the previous Office action has been withdrawn pursuant to 37 CFR 1.1 14. Applicant's submission filed

on 7/13/06 has been entered.

Claims 1-61 have been presented for examination in this application. In response

to the last Office Action, claims 1-26,28,43,37,51,55-61 have been cancelled, claims

27,32,40-41,42,44,46,48,50,52 were amended. As a result, claims 27,29-42,44-46,48-

50,52-54 are now pending in this application.

Claims 27,29-42,44-46,48-50,52-54 are rejected.

Applicant's arguments filed 7/13/06 have been fully considered but they are not

persuasive. Therefore, the rejections from the previous office action are respectfully

maintained, with changes as needed to address the amendments.

Claim Rejection 35 USC 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition

of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the

conditions and requirements of this title.

Claims 50-52,54 rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

As in claim 50, the claim directs to "a computer-readable medium comprising ... instructions... performing instructions..".

The claim language does not describe any of functionality to occur since the sequence of functionality is not necessary executed. In this instant, a computer-readable medium itself, by definition, is not capable of performing any kind of functionality.

Thus there does not appear to be a useful, concrete and tangible result to occur.

All dependent claims are rejected as having the same deficiencies as the claims they depend from.

Claim 54 is rejected based on the same rationale as of claim 50. In this instant, the claim merely requires the computer-readable medium coupled to a computer.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another fled in the United States before the invention thereof by the applicant for patent, or on an international

application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section

371(c) of this title before the invention thereof by the applicant for patent.

Claims 27,29-30,32-42,44-46,48-50,52-54 rejected under 35 U.S.C. 102 (a) as

being anticipated by Miyata et al (US 2003/0225972).

As for claim 27, Miyata describes a method comprising: in response to a request

to perform an operation on a first set of locations of a plurality of location in a storage

area (Miyata 's Fig 11, paragraphs 87-88 discloses that the controller Fig 1: #131 perform

a copy duplicate operation in response to a request from client computer Fig 1: #11a), and

performing the operation upon a given location in the first set of locations of the plurality

of locations in the storage area only if the given location is described in the at least one

location description, wherein the at least one location description has a corresponding

property identifying the operation (Miyata's Fig 2, Fig 4 discloses the metadata structure

corresponding to the claim's the location description structure, that has property

identifying the operation, Fig 2: #202,203, the extend file attribute; This attribute

commands the processor Fig 1: #13 to process the identified operation for corresponding

files and data blocks, see paragraphs 59,84).

As for claim 29, Miyata describes wherein the al least one location description is

specified by an application program (Miyata's paragraphs 96-99 describes API and

methods for user to specifying the areas to be duplicated).

As for claim 30, Miyata describes wherein the operation is replication (Miyata 's

column 3, lines 18-21, paragraph 84).

As for claim 32, Miyata describes wherein the at least one location description

and the corresponding property describing the type of the operation are designated by a

requester (Miyata's paragraphs 96-99 describes API and methods for user to specifying

the areas to be duplicated).

As for claims 33-35, Miyata describes obtaining a designation of the operation to

be performed (claim 33, paragraph 86-87, Fig 11, the processor #13 obtained the copy

"ditto" operation designated by client computer #11); wherein the requester manages data

in the storage area (claim 34, Miyata's paragraph 96); wherein the requester performs a

management function of a set of management functions for the storage area (claim 35,

Miyata's paragraph 95)

As for claims 36, Miyata describes wherein the requester identifies a respective

physical location described in the at least one location description (Miyata's paragraphs

96-98 disclose that the client/user identifies respective storage regions for the

copy/duplicate operation).

As for claim 37, Miyata describes wherein each location in the second set of

locations is specified by a beginning location and a number of contiguous locations

starting at the beginning location (Miyata 's column 6, lines 1-3, lines 30-39).

As for claim 38, Miyata describes wherein the at least one location description

is designated by a set of indicators, wherein the set of indicators comprises an indicator

for each respective location of the plurality of locations Miyata's Fig 4, Fig 2, paragraphs

50-52 describes each attribute bit associated with its corresponding storage location such

as a data block), and

each indicator of the set of indicators indicates whether the respective location for the

indicator is described in the at least location description (Miyata's Fig 4, Fig 2,

paragraphs 50-52 describes each attribute bit describing the corresponding operation such

as duplication for the corresponding data block).

As for claim 39, Miyata describes obtaining a second set of locations location of a

second duplicate operation (Fig 4a: offset 728, extent 472); and performing a second

operation (duplicating operation) on the second set of locations after the operation

(upstaging data to cache) is performed on the given location (Miyata's Fig 4, Fig 2,

paragraphs 50-52 describes each attribute bit describing the corresponding operation such

as duplication and cache residence for the corresponding data block);

As for claim 40, Miyata describes wherein the at least one location description

and the corresponding property describing the type of the operation are designated by the

requester; and the operation and the second operation are designated by the requester

(Miyata's paragraphs 67,98 describes that requester provides the attribute information

and the corresponding storage locations).

As for claim 41, Miyata describes wherein a sieve for the storage area comprises

the at least one location description and the corresponding property describing the type of

operation, and each type of operation in the sieve is performed on the given locations if

the sieve is specified (Miyata describes the file system with meta data attributes in which

the attributes can be turned on or off to specify an operation such as duplicate for the

corresponding data block. Each attribute specifies different operations such as cache

residence, duplication (Miyata's Fig 2).

As for claim 42,46 it rejected based on the same rationale as in claim 27.

As for claims 44,48,52 they rejected based on the same rationale as in claim 40.

As for claims 45,53 they rejected based on the same rationale as in claim 33.

As for claim 49, it rejected based on the same rationale as in claim 33.

As for claim 50, it rejected based on the same rationale as in claim 27.

As for claim 54, it rejected based on the same rationale as in claim 50.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 31 rejected under 35 U.S.C. 103(a) as being unpatentable over Miyata et al (US 2003/0225972) as applied in claim 27, and further in view of Krishnamurthy (US 6823436).

As for claim 31, Miyata does not expressly describe the claim's detail of subsets. However, Krishnamurthy's column 4 lines 43-49 describes as follows: obtaining a set of entities, wherein the first set of locations comprises a plurality of subsets of locations (data blocks in an extent), and an entity in the set of entities (an extent) has permission to perform the operation on respective data in at least one of the plurality of subsets of locations (copy data blocks in extents). It would have been obvious to one of ordinary skill in the art at the time of invention to include copy method as suggested by

Krishnamurthy in Miyata's system such that data is being copied from the source storage

area to the destination area in a small chunk of contiguous blocks of data, and thereby

data can be provided to the host from either source drive or target drive much sooner

(Krishnamurthy's column 4 lines 13-30).

Response to Arguments

Applicant's arguments in response to the last office action has been fully

considered but they are not persuasive. Examiner respectfully traverses Applicant's

arguments for the following reasons:

As to the remarks on pages 7-10 concerning the claim 27.

A) Applicant argues that Miyata's metadata structure shown in Fig 2 and 4 does

not teach "the attributes field describes an operation that can be performed on the

corresponding data blocks..". Examiner respectfully disagrees, Miyata' Fig 2 shows

attributes bits #200, #203 that indicates the operation to be operated on the corresponding

data block entry, the data block corresponds to the logical block address Fig 2: #201.

Miyata's paragraph 42 further discloses a particular bit representing one operation, the

operation or one attribute. If a bit is 1, the operation must be performed, if the bit is zero,

the operation is not performed. The type of operation for these attributes can be defined

in advance, fro example by a client's computer Fig 1: #11a.

B) Examiner respectfully disagrees with Applicant's interpretation that the

attribute bit 203 indicating a "ditto" copy operation should/should not be formed.

Miyata's paragraphs 86 clearly define the attribute values 1 as the operation must be performed and value 0 as operation must not be performed (see rationale in item A).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

When responding to the office action, Applicant is advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Doan whose telephone number is 571-272-4171. The examiner can normally be reached on M-F 8:00 AM 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DD

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TC2188

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